GCWW Water Quality Data Table 2003

The Quality of Your Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which shall provide the same protection for public health. The table below shows the substances detected in GCWW drinking water while performing monitoring required by the EPA. **The substances found were present in quantities less than the EPA limits for safe drinking water. GCWW tests for many more substances that consistently meet all state and federal health standards established for drinking water.** If you would like a complete listing of GCWW test results, call (513) 591-7700.

Regulated Contaminants:

Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT)*.
These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health and are known or anticipated to occur in public water systems.

			Miller Water (from the Ohio River)		Bolton Water (from the Great Miami Aquifer)		Mason Water - North Service Area (from the Shaker Creek Aquifer)		Typical Source of Contamination (for more details, visit **www.epa.gov/safewater/hfacts.html**)
Substance (Unit)	Maximum Allowed (MCL*)	MCLG*	Highest Compliance Level Detected	Range of Detections	Highest Compliance Level Detected	Range of Detections	Highest Compliance Level Detected	Range of Detections	
Fluoride (ppm)	4	4	1.10	0.82 - 1.10	1.10	0.80 - 1.10	1.25	0.21 - 1.25	Additive which promotes strong teeth. May come from erosion of natural deposits.
Nitrate (ppm)	10	10	1.64	0.82 - 1.64	2.75	1.70 - 2.75	0.23	na	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Total Trihalomethanes (ppb)	80	na	27.2	16.2 - 46.8	37.2	24.7 - 44.7	11.2	8.36 - 12.6	Byproduct of drinking water disinfection, measured in the distribution system.
Haloacetic Acids (ppb)	60	na	10.0	5.76 - 13.1	11.2[d]	7.76 - 14.6[d]	5.20[d]	3.32 - 8.70[d]	Byproduct of drinking water disinfection, measured in the distribution system.
Gross Beta (pCi/L)	50	0	nd	nd	4.8[f]	na	na	na	Decay of natural and man-made deposits. (EPA considers 50 pCi/L to be the level of concern.)
Turbidity (NTU)	TT1 < 1 NTU Max *and* TT2 < 0.3 NTU 95% of the time	na na	0.11 100% < 0.3 NTU	0.05 - 0.11	na	na	na	na	Soil runoff
Lead[c] (ppb)	AL = 15	0	*90th percentile* 9.5	nd-36.8 (4 out of 104 samples tested were > the AL)	*90th percentile* 9.5	nd-36.8 (4 out of 104 samples tested were > the AL)	*90th percentile* nd[f]	nd - 7[f] (0 out of 30 samples tested were > the AL)	May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customer taps, as required by the Safe Drinking Water Act to ensure safe water.
Copper[c] (ppm)	AL = 1.3	1.3	*90th percentile* 0.0250	nd-0.0601 (0 out of 104 samples tested were > the AL)	*90th percentile* 0.0250	nd-0.0601 (0 out of 104 samples tested were > the AL)	*90th percentile* 0.23[f]	nd - 0.410[f] (0 out of 30 samples tested were > the AL)	
Total Organic Carbon	TT[b]	na	2.50	1.59 - 3.50	na	na	na	na	Naturally present in the environment.
Total Chlorine[c] (ppm)	MRDL = 4	MRDLG = 4	0.95	0.82 - 1.04	0.95	0.82 - 1.04	na	na	Water additive used to control microbes.
Total Coliform Bacteria[c] (% Positive)	5%	0	0.7%[e]	0 - 0.7%	0.7%[e]	0 - 0.7%	nd	nd	Naturally present in the environment.
Barium (ppm)	2	2	nd	nd	nd	nd	0.18[f]	nd - 0.18[f]	Discharge from drilling waste & metal refineries. Erosion of natural deposits.

Unregulated Contaminants:

Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

		Miller Water		Bolton Water		Mason Water		Typical Source of Contamination
Substance (Unit)	MCLG*	Average Level Detected	Range of Detections	Average Level Detected	Range of Detections	Average Level Detected	Range of Detections	
Chloroform (ppb)	na	2.1	na	1.3	na	2.3[f]	1.5 - 3.2[f]	Substances in this portion of the table are byproducts of drinking water disinfection. Disinfection of drinking water is a major public health advance of the 20th century. One hundred years ago, typhoid and cholera epidemics were common in American cities. Disinfection was a major factor in reducing these epidemics. GCWW uses chlorine as a disinfectant to kill harmful microorganisms such as bacteria and viruses. Disinfectants can react with naturally occurring materials in water to form substances which may pose health risks. These substances are called "disinfection byproducts (DBPs)". The disinfection byproducts found in Cincinnati water for which EPA requires monitoring are listed here.
Bromodichloromethane (ppb)	0	2.7	na	3.4	na	3.9[f]	2.5 - 6.8[f]	
Dibromochloromethane (ppb)	60	3.4	na	7.7	na	3.3[f]	nd - 8.0[f]	
Bromoform (ppb)	0	0.9	na	7.9	na	1.5[f]	1.0 - 3.1[f]	
1,1 - Dichloropropanone (ppb)	nr	nd[a]	nd - 1.98[a]	nd[a]	nd - 2.04[a]	na	na	
1,1,1 - Trichloropropanone (ppb)	nr	nd[a]	nd - 1.70[a]	nd[a]	nd - 1.69[a]	na	na	
Trichloroacetonitrile (ppb)	nr	nd[a]	nd - 1.28[a]	nd[a]	nd - 1.25[a]	na	na	
Dichloroacetonitrile (ppb)	nr	0.62[a]	nd - 2.09[a]	1.62[a]	nd - 2.12[a]	na	na	
Bromochloroacetonitrile (ppb)	nr	0.71[a]	nd - 2.40[a]	1.35[a]	0.51 - 2.55[a]	na	na	
Dibromoacetonitrile (ppb)	nr	1.41[a]	nd - 3.70[a]	3.84[a]	1.80 - 4.83[a]	na	na	
Chloral Hydrate (ppb)	nr	0.58[a]	nd - 1.97[a]	nd[a]	nd - 0.69[a]	na	na	
Total Organic Halide (ppb)	nr	nd[a]	nd[a]	nd[a]	nd - 73.1[a]	na	na	
Free Chlorine Residual (ppm)	nr	0.89[a]	0.60 - 1.27[a]	0.92[a]	0.55 - 1.20[a]	na	na	Disinfectant
Sulfate (ppm)	nr	68	62-78	54	50-58	139[a]	129-148[a]	Erosion of natural deposits

*Definitions

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Action Level or AL: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

Maximum Residual Disinfection Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal or MRDLG: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Radon: Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer, however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. GCWW monitored for radon in Bolton finished water during 2001. One sample was collected and the radon level was 200 pCi/L. This was less than the USEPA proposed MCL of 300 pCi/L for radon. For additional information on how to have your home tested, call 1-800-SOS-RADON.

Turbidity: We are required to report on the turbidity as an indication of the effectiveness of our filtration system. Turbidity is a measure of the cloudiness of water. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported in the table above, GCWW's highest recorded turbidity result for 2003 was 0.11 NTU (Miller Water) and 0.05 NTU (Bolton Water) and lowest monthly percentage of samples meeting the turbidity limits was 100%. GCWW was better than all safety requirements for turbidity levels in 2003.

Abbreviations

ppb: parts per billion or micrograms per liter.
ppm: parts per million or milligrams per liter.
NTU: Nephelometric Turbidity Unit, used to measure clarity in drinking water.
nd: not detectable at testing limits
nr: not regulated **na:** not applicable.
pCi/L: picoCuries per liter, a measure of radioactivity in water.

Foot Notes [a]Sample analysis was not required in 2003. Shown is most recent data collected. [b]The value reported under "Highest Compliance Level Detected" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements. [c]Miller and Bolton were considered as one system for regulatory purposes by Ohio EPA during 2003. Data listed for each system represents the combined system. [d]Monitoring not required for ground water. Data provided as additional information. [e]In 2003 only 3 of 3,405 distribution samples were positive for coliform bacteria. The repeat samples were negative. [f]Sample analysis not required in 2003. Results shown are from 2001.